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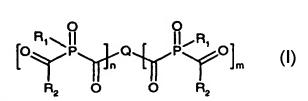
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(54) Title: MULTIMER FORMS OF MONO- AND BIS-ACYLPHOSPHINE OXIDES



$$\begin{bmatrix} R_3 & 0 & 0 & 0 \\ R_1 & P & 0 & P \\ 0 & 0 & P \\ 0 & 0 & P \end{bmatrix}_m \qquad (II)$$

$$\begin{bmatrix} \begin{matrix} M \\ R_1 \end{matrix} & \begin{matrix} M \\ P \end{matrix} & \begin{matrix} M \\ Q \end{matrix} & \begin{matrix} M \\ P \end{matrix} & \begin{matrix} R_1 \end{matrix} \end{bmatrix}_m$$
 (III)

$$\begin{bmatrix} Hal & Q & Hal \\ Q & Q & Mal \end{bmatrix}_m \qquad (X)$$

(57) Abstract: The invention relates to dimer and multimer forms of BAPO compounds of the formula (1) dimer and multimer forms of MAPO compounds of the formula (II) wherein R₁, R₂, and R₃ independently of one another are unsubstituted or substituted C₁-C₁₂alkyl, benzyl, C₁-C₁₂alkoxy, C₃-C₆cycloalkyl or C₅-C₁₄aryl; Q is a di-tri or tetravalent arylene residue; n is 1-4, m is 0-2, n+m is 2, 3 or 4, with the proviso, that R₁ and R₃ are different from each other. The invention further relates to a process for the preparation of dimer or multimer forms of BAPO compounds of the formula (I) and of dimer or multimer forms of MAPO compounds of the formula (II), characterized in the (n + m) equivalents of a dimetalated-phosphine $R_1P(M)_2$ is reacted with one equivalent of a di-or polycarboxylic acid halogenide to form an intermediate of the formula III the intermediate is then reacted either with (n + m) equivalents of a further carboxylic acid halogenide (R2-CO-Hal) or with a halogenide R3-Hal, the reaction products are then oxidized to form phosphine oxides of the formula I or II.

